

REMARKS

Claims 1-9, 11-15, 20 and 24 are pending in the application. Upon entry of this Amendment, which is respectfully requested, Claims 8-9, 11-15, and 20 are amended. Claims 10, 16-19, and 22-23 are canceled. Claim 24 is added.

Claims 11-12 and 20 have been amended to recite “Corticotropin Releasing Factor (CRF)” in place of “CRF”. Support for the amendments may be found throughout the specification, and at least at page 1, second paragraph.

Claims 11-15 have been amended to method of treatment claims. Support for the amendments may be found throughout the specification, and at least at page 12, lines 14-18, the last paragraph bridging pages 12 to 13, at page 13, second paragraph, at page 14 lines 1-19, at page 16, lines 13-18, at page 17, lines 7-13 and at page 18, lines 11-14.

Claims 8 and 9 have been amended to recite “a pharmaceutically acceptable carrier”. Support for the amendments may be found throughout the specification, and at least at page 14, lines 1-19, the last paragraph bridging pages 16-17, at page 17, second paragraph, the last paragraph bridging pages 17 to 18.

No new matter is added. Entry and consideration of the Amendment is kindly requested.

Information Disclosure Statement

At page 3 of the Office Action, the Office alleges that the Information Disclosure Statement filed December 19, 2005 does not comply with 37 CFR 1.98(a)(2). Specifically, the Office Action states that the foreign patent documents (JP 5-112571, WO 02/053565, WO 97/11946) and a non-patent literature document (International Search Report dated September 21, 2004) submitted on December 19, 2005 may have been misplaced and thus they have not

been considered. Accordingly, the Examiner requests Applicants to resubmit the documents prior to a Final Office Action for consideration.

Applicants resubmit herewith copies of the foreign patent documents (JP 5-112571, WO 02/053565, WO 97/11946) and a non-patent literature document (International Search Report dated September 21, 2004) for consideration.

Please acknowledge the Information Disclosure Statement.

Specification

The Office Action states that the title of the invention is not descriptive. Accordingly, the Examiner requests Applicants to submit a new title.

In response, Applicants submit herewith a new title, i.e., "8-(3-Pentylamino)-2-methyl-3-(2-chloro-4-methoxyphenyl)-6,7-dihydro-5H-cyclopenta[d]pyrazolo[1,5-a]pyrimidine methanesulfonate as a CRF Antagonist" as suggested by the Examiner.

The Abstract of the disclosure is objected to by the Examiner as allegedly being too vague. The Examiner states that the Abstract should provide a short summary of the invention. The Examiner recommends using Claim 1 with the structure for the Abstract.

In response, Applicants submit herewith a new Abstract. No new matter is added.

Accordingly, entry of the new title and Abstract and withdrawal of the objection is respectfully requested.

Claim Objections

Claims 10-12, 17 and 20 are objected to by the Office because the full name of the abbreviation/acronym "CRF" is not recited.

In response, solely to compact prosecution, Claims 11, 12 and 20 have been amended to recite “Corticotropin Releasing Factor (CRF)” in place of “CRF”. Claims 10 and 17 have been canceled. Thus, the objections with respect to Claims 10 and 17 are rendered moot.

Claims 10-15 are objected to by the Examiner. The Examiner states that Claims 10-15 are substantial duplicates of Claim 8 because the claims only recite a statement of an intended use, which is not given material weight.

Solely to compact prosecution, Claims 11-15 have been amended into method of treatment claims. Claim 10 has been canceled. Thus, the objection with respect to Claim 10 is moot.

Claim 17 is objected to by the Examiner as allegedly being a substantial duplicate of Claim 8. The Examiner states that Claim 17 only recites an intended use, which is not given material weight.

Claim 17 has been canceled. Thus, the objection with respect to Claim 17 is moot.

The Examiner states that the instant application contains claims 16, 18, 19, 22 and 23, drawn to an invention nonelected without traverse. Thus, the Examiner suggests that Applicants cancel non-elected claims in reply to the final rejection.

In response, Claims 16, 18, 19, 22 and 23 are canceled. Accordingly, withdrawal of objections is respectfully requested.

Claim Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 8-15, 17 and 20 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The Examiner asserts that Claims 8-15

are indefinite because the claims are directed to a composition but the claims, specifically Claim 8, do not recite a carrier, diluent or excipient.

In response, Claims 8 and 9 have been amended to recite “a pharmaceutically acceptable carrier” as suggested by the Examiner. Claim 10 has been canceled. Thus, the rejection with respect to Claim 10 is rendered moot. Claims 11-15 have been amended to method of treatment claims.

The Examiner also asserts that Claim 17 is indefinite because the claim does not include a carrier, diluent or excipient though the preamble recites a composition

Claim 17 has been canceled. Thus, the rejection with respect to Claim 17 is moot.

With respect to Claim 20, the Examiner asserts that the claim provides for the use of claimed compounds, but the claim does not set forth any steps involved in determining which diseases are mediated by CRF antagonists. The Examiner asserts that determining whether a given disease responds or does not respond to such an inhibitor will involve undue experimentation. Accordingly, the Examiner asserts that determining the true scope of the claim will involve extensive and potentially inconclusive research and thus one skilled in the art cannot determine the actual scope of the claim.

The Examiner also asserts that no pharmaceutical has 100% efficacy but the present application does not show success rate of the claimed compound in treating a disease. Thus, the Examiner contends that absent a criteria determining a success rate it is unclear if the recited disease is treatable. The Examiner asserts that many dosages and dosage regimens must be tried before one is certain that a compound can be used to treat a specific disease. The Examiner contends that while the claimed compound is active in vitro, it could not be potent enough to effectively treat a specific disease in vivo.

In response, Applicants disagree and respectfully traverse this rejection for the following reasons.

Claim 20 is only directed to using the compound in antagonizing the activity of CRF whether or not treatment is involved. Therefore, Applicants submit that antagonizing the activity of CRF does not require undue experimentation because it does not require determining whether a given disease responds to the compound or not.

Furthermore, the instant specification demonstrates specific antagonistic activity of the claimed compound ($IC_{50} < 1 \mu M$) in vitro using a receptor binding assay and a CRF receptor antagonist assay (pages 41-43, Experiments 1 and 2). Thus, contrary to the Examiner's contention, Applicants submit that one of ordinary skill in the art would readily be able to determine the corresponding dosages effective to inhibit CRF activity in vivo based on the Applicants' disclosure.

Additionally, solely to advance prosecution and without prejudice or disclaimer, Claim 20 is amended to recite "the activity of Corticotropin Releasing Factor (CRF) in a mammal, comprising administering to said mammal".

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections - 35 U.S.C. § 103

In the Office Action, Claims 1-15, 17 and 20 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Nakai et al. ("Nakai", WO 2002/053565, US equivalent 7034153 B2). The Examiner asserts that Nakai claims 8-(3-Pentylamino)-2-methyl-3-(2-chloro-4-methoxyphenyl)-6,7-dihydro-5H-cyclopenta[d]pyrazolo[1,5-a]pyrimidine and pharmaceutically acceptable salts thereof.

Applicants respectfully disagree and traverse the rejection.

As described in the instant specification (page 5, lines 1-11), Applicants note that there are potential problems, e.g., inferior stability, low yield, associated with 8-(3-Pentylamino)-2-methyl-3-(2-chloro-4-methoxyphenyl)-6,7-dihydro-5H cyclopenta[d]pyrazolo[1,5-a]pyrimidine hydrochloride. On the other hand, the claimed compound (i.e., methanesulfonate salt form) exhibits unexpectedly superior thermal stability over the hydrochloride salt form (page 11, lines 10-25). Additionally, Applicants also note that the effect is specific to the methanesulfonate salt because the thermal stability cannot be obtained by other pharmaceutically acceptable salts. For example, phosphoric acid salt of 8-(3-Pentylamino)-2-methyl-3-(2-chloro-4-methoxyphenyl)-6,7-dihydro-5H-cyclopenta[d]pyrazolo[1,5-a]pyrimidine has endothermic and exothermic peaks and has a problem in thermal stability. In this respect, it is surprising that one salt form can provide such a big effect on thermal stability. In view of foregoing, Applicants submit that the present invention is not obvious over Nakai et al.

Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. § 103(a) is respectfully requested.

Double Patenting

Claims 1-15, 17 and 20 are rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1 and 2 of U.S. Patent No. 7,034,153.

Applicants respectfully disagree and traverse the rejection. The present invention is distinct and non-obvious over US Patent No. 7,034,153 (Nakai et al.) for the reasons set forth in Applicants' arguments above, in response to the 103(a) rejection, arguments herein incorporated by reference and applied. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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